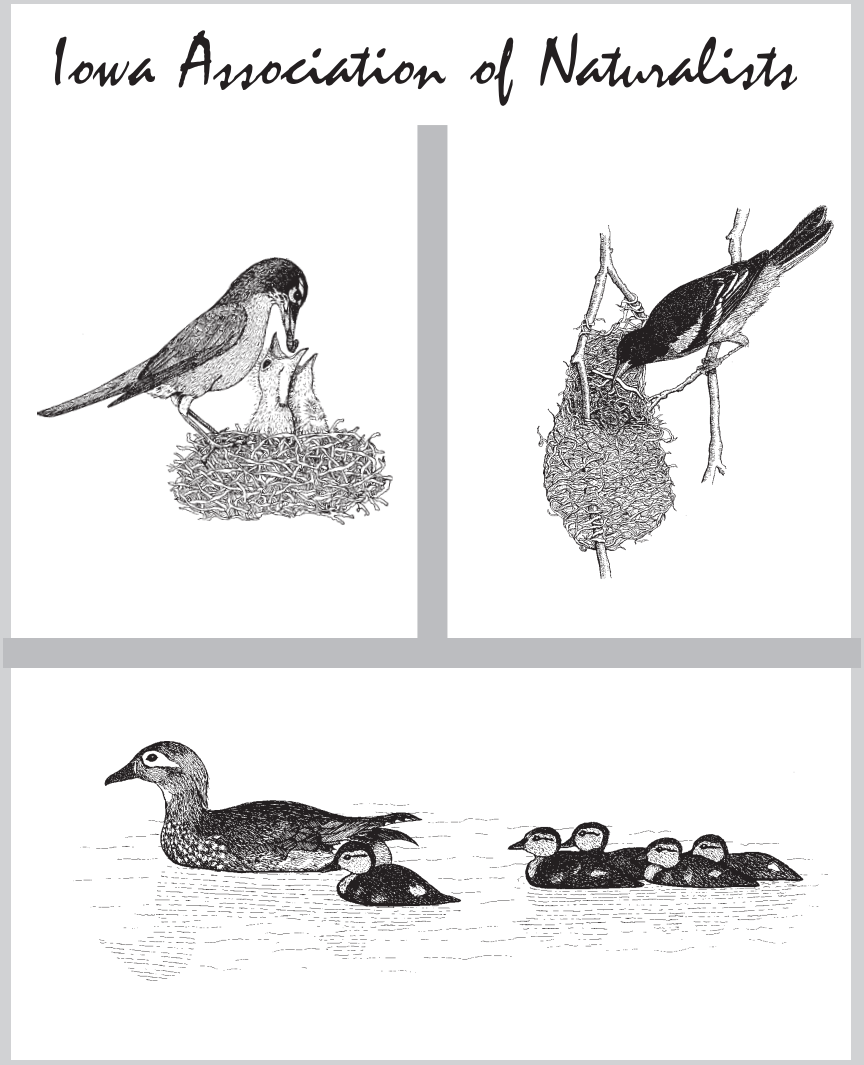
9-1998

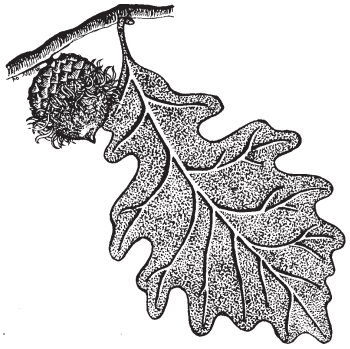
Iowa Nesting Birds -- Iowa Wildlife Series

Iowa Association of Naturalists

Iowa Nesting Birds



Iowa Wildlife Series



Iowa Association of Naturalists

The Iowa Association of Naturalists (IAN) is a nonprofit organization of people interested in promoting the development of skills and education within the art of interpreting the natural and cultural environment. IAN was founded in 1978 and may be contacted by writing the Conservation Education Center, 2473 160th Rd., Guthrie Center, IA 50115, 515/747-8383.

Iowa Wildlife Series

Students need to be knowledgeable about and appreciate local wildlife in order to better understand the natural environment. The Iowa Association of Naturalists has created this series of booklets to offer a basic understandable overview of Iowa wildlife. These booklets will assist educators in teaching students about Iowa wildlife. The six booklets in this series are:

Iowa Mammals (IAN-601)
Iowa Winter Birds (IAN-602)
Iowa Nesting Birds (IAN-603)
Iowa Reptiles and Amphibians (IAN-604)
Iowa Fish (IAN-605)
Iowa Insects and Other Invertebrates (IAN-606)

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Iowa Nesting Birds

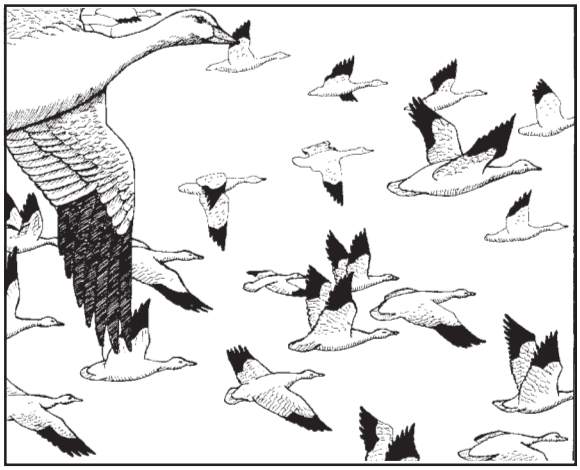
Home to nest

It's a beautiful spring morning! Predawn light soaks through the bedroom curtains and fills the room with a soothing, dim light, gently waking a sleepy head for the coming concert. The music begins as a solo. Somewhere in the neighborhood, a lone cardinal perches atop a tree and begins singing. Within minutes, a chorus of singers, each with their own pitch and melody, add their voices to the morning concert. The singing continues as the sun lifts from the horizon. For awhile, the music takes on a chaotic and competitive tone as too many singers seem to crowd the backyard stage. Then slowly the singers begin to diminish in intensity. The grand concert disperses with the starting of cars and lawn mowers, but music continues throughout the day as a series of solos and duets from within the shrubs, trees, and grasses.

The morning music of spring is presented by birds, home to nest. Some of these birds travel great distances to arrive home in Iowa. Others remain in the Midwest year-round. The music is their prelude to nesting and raising young. Each spring, birds are an ever-present reminder of rebirth and continuing cycles of life as their music and fluttering work of building nests and raising young surrounds us.

Migration

Wildlife use a variety of strategies to survive cold temperatures, deep snow, and lack of food during winter. For birds, these strategies consist of either enduring or fleeing from winter's grasp. Those birds that endure winter are able to eat foods that are available even after the leaves fall and the water freezes. Covered with great feathery insulation and equipped with a high metabolism that burns like a small furnace, these birds are able to endure Iowa's sometimes brutal winters.



Birds which feed on non-dormant insects and worms or need open water migrate as the food disappears and the water freezes. Some birds fly great distances to warmer wintering areas. This seasonal movement is called **migration**. It is easy to predict those birds which will migrate each fall by looking at a bird species' requirements for food and water.

There are several factors that determine when a bird will migrate. Migration is a genetic trait of certain species of birds. Prior to migrating, these birds undergo hormonal changes that increase their fat layer and allow them to put on the weight needed to sustain their migration. These changes and the impetus to migrate may be triggered by changes in day length, weather, and other factors.

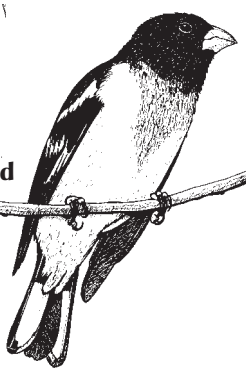
Birds migrate to increase their chance of survival. But migration is not always safe and easy. Birds invest a lot of food and energy in migrating. Before their fall or spring departure, they require a lot of food to build up their energy reserves for the long flight. While migrating, most birds require stop-over areas where they can rest and feed in safety. One of the most amazing stop-over areas

for migrating waterfowl is the DeSoto National Wildlife Refuge located along the Missouri River near Missouri Valley, Iowa. Each November, a half-million snow geese stop at the refuge to feed along the river and in nearby fields.

Birds of two worlds

The dangers which face permanent residents may be doubled for migratory bird species which are dependent on two habitats. This is especially true for species which use habitats in separate places on the globe.

In winter, many birds from the broad expanse of the United States and Canada congregate into much smaller areas in the tropics of Central or South America, or in Mexico. These **neotropical migrants** face with dangers that threaten their Iowa habitat in addition to the dangers that threaten their tropical wintering areas. Each acre of habitat in the tropics holds six or seven times as many birds as each acre of nesting habitat in Iowa. Therefore, loss of tropical habitat has a profound effect on populations of neotropical birds nesting in Iowa. Approximately 110 songbird species that nest in the Midwest are neotropical migrants. Ten common neotropical migrants are listed here.



Rose-breasted grosbeak

Common neotropical migrants

- Ruby-throated hummingbird
- Purple martin
- Gray catbird
- Wood thrush
- Red-eyed vireo
- American redstart
- Bobolink
- Baltimore oriole
- Scarlet tanager
- Rose-breasted grosbeak

Bobolink

Bird courtship

Once the nesting season begins, bird behavior changes as birds seek nest sites and choose mates. For owls, hawks, and some other birds, this may begin in winter. However, the majority of birds begin their nesting season in early spring.

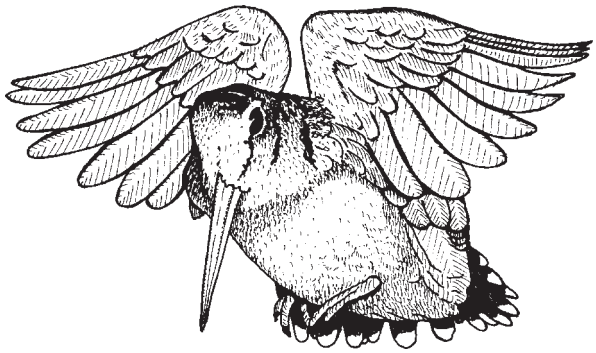
Male and female birds form pairs for nesting on the basis of courtship behaviors. Courtship behaviors are many and varied depending on the species, but most courtship behavior is initiated by a male that has successfully established a nesting territory and is ready to start a family. Once attracted to the male, the female often must still be won, requiring a second set of behaviors. By accepting or rejecting the male, the female usually chooses whether or not the pair will form.

Many birds sing as a means both of declaring their territory to rival males and to solicit the attention of arriving females. But some birds use other sounds. Ruffed grouse beat their wings to produce a drumming sound. Woodpeckers drum their beaks on trees. Nighthawks dive at great speeds, producing a booming sound as the wind rushes through their wings.

Beautiful colors also are used in courtship. Brightly colored tanagers, buntings, and orioles strut their stuff. Robins display their bright orange breasts. Red-winged blackbirds display their bright red shoulder patches. Kinglets show off their crowns.

Once a male has attracted the attention of a female, other courtship behaviors often are used to "convince" the female to be his mate. Cranes bow and dance before their mates. A woodcock circles hundreds of feet up into the air only to make a

swooping dive back to the ground and his impressed mate. In some species of birds, such as cardinals, doves, chickadees, and eagles, the male will feed the female as a courtship gesture. Most territorial songbirds simply attack every bird of their kind that enters their territory. Males are chased away, while some females retreat but remain in the area. The male's aggression soon changes to a series of courtship flights and songs aimed at keeping the female in his territory.

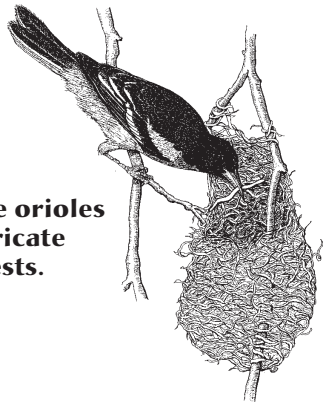


Woodcocks are known for their spectacular aerial courtship displays.

If courtship is successful, the male and female mate and form a pair bond. This bond may last only a few minutes or may last years. Most songbirds remain paired while they raise the young. Ruffed grouse, however, break their bond once mating is completed. Hummingbirds remain together for a few days after mating. Most ducks bond a few days before mating and then separate afterwards. However, geese, cranes, swans, and sometimes eagles will keep their pair bonds "until death do them part."

Building a nest

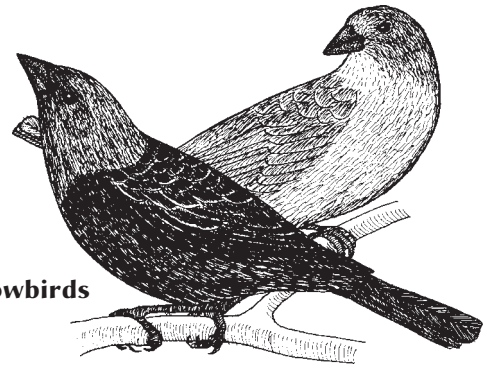
All birds lay eggs that need to be incubated in some type of nest. Nests vary greatly depending on the type of bird. Killdeers lay their eggs among rocks on the ground. Orioles and hummingbirds weave intricate baskets. House wrens pack their nests with small twigs, while bluebirds build a nest of fine grass and hair. Regardless of nest differences, all nests must provide safe places for laying eggs and raising young. Most nests are inconspicuous or camouflaged. Although laying exposed on a gravel sandbar, a killdeer's eggs are so well camouflaged they are barely noticeable.



Baltimore orioles make intricate basket nests.

It is amazing to watch some birds construct their nests. Depending on the species, it may be the female, the male, or both poking and sticking together a variety of materials. Each bird species constructs its own particular architectural design using specific materials. Depending on the type of bird, grasses, twigs, branches, hairs, garbage, moss, lichen, mud, feathers, and thistle down are common building materials.

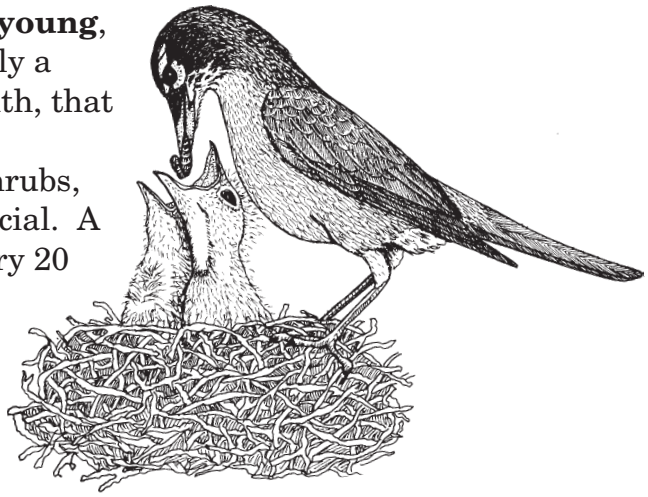
Some birds do not build their own nest but rather use the nest of another bird species. This **nest parasitism** is common with brown-headed cowbirds which never build their own nest. Cowbirds typically distribute their eggs in the nests of several other birds. They depend on the hosts to hatch and raise their young. In many cases, the host mother will spend so much time and energy feeding the larger cowbird chick that her own hatchlings do not survive. Cowbirds are a native species that historically were less common than they are today. Nest parasitism evolved as an adaptation for the birds' historic existence following herds of bison. Their population has grown in modern times as they adapted to an agricultural landscape where large forests have been replaced by pastures and small woodlots. Cowbird nest parasitism is now an important factor in the population decline of some neotropical migrant species as well as song sparrows and other birds. Robins and catbirds, however, have a reputation for being less gullible and usually discard cowbird eggs.



Brown-headed cowbirds

Feeding the family

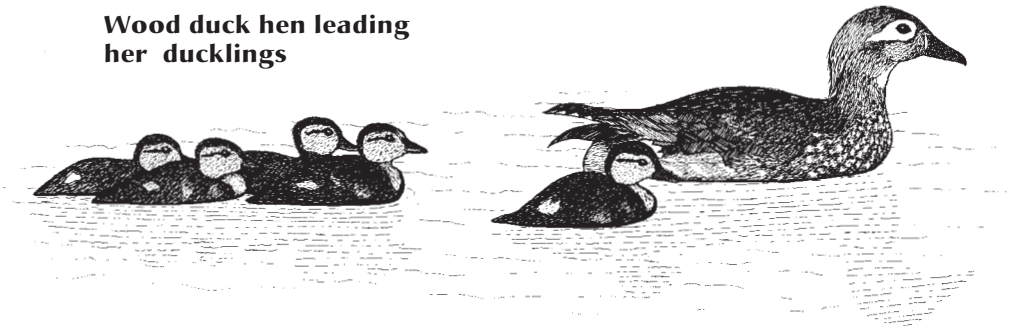
Once the nest is complete and the eggs have been incubated, the real activity is about to begin. From the moment the first hatchling cracks the shell with its tiny egg tooth, raising a feathered family takes constant work and attention. Baby birds, with their high metabolism and fast growth rate, are demanding. It is the **altricial young**, those that are born helpless and with only a light coating of downy feathers for warmth, that require the most feeding and protection. Nearly all birds that nest in trees and shrubs, and some ground-nesting birds, are altricial. A mother robin may feed her offspring every 20 minutes, from sunup to sundown - enough worms to stretch more than 11 feet! Some birds, such as kingfishers, may eat more than their body weight in food per day! Although unable to fly or even walk, helpless hatchlings often must compete with their siblings. Those chicks which appear to be the most hungry, with their mouths gaping straight up and voices peeping loudly, often are first to be fed.



Parents feed their offspring the most high-energy food available. Many adult birds with a vegetable diet feed insects and other animal food to their quick-growing young. Parents of altricial young either place food directly into the nestling's open beak or regurgitate food to their young. All pigeons, including mourning doves, regurgitate food, called pigeon "milk," to their young.

Precocial young are those that hatch with thick feathering and good eyesight. They quickly begin to walk on their own after hatching and may even start feeding themselves. It becomes the parent's constant duty to watch over the active chicks and protect them from predators and other dangers. Some parents of precocial young have special responsibilities. Soon after hatching, young wood

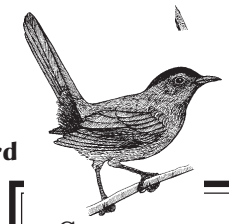
ducks crawl out to the opening of their tree-cavity nest and leap into the air, falling as far as 50 feet to the ground. The female then leads the chicks through the woodland and sometimes across roads, yards, and other obstacles, to open water where she will continue to raise the ducklings.



Wood duck hen leading her ducklings

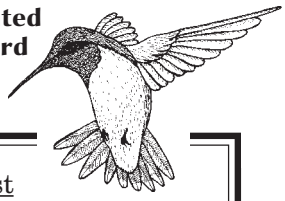
Iowa's spring birds

Many species of colorful and vocal songbirds nest in Iowa. Some of these birds travel hundreds or thousands of miles to return as harbingers of spring. The spring call of a robin or meadowlark marks the "official" beginning of the season. Other songbirds are year-round residents which have endured the winter. Cardinals are one of the first to begin staking out territories. Males are heard singing out their borders as early as January. Goldfinches are the latest songbirds to begin nesting, usually waiting for the availability of the downy seeds of thistle and cattail to mature in July. Twenty common birds which nest in Iowa are listed here. Refer to a field guide for more detailed lists, descriptions, ranges, and behaviors.



Gray catbird

Ruby-throated hummingbird



Common birds of Iowa

Common name	Distinguishing characteristics	Nest
Mourning dove	A slim, gray and brown dove, more lightly colored near the head. The tail is long and tapered and shows white edges when the bird is flying. Length: 10.5”	A loose platform of twigs often placed in an evergreen tree
Ruby-throated hummingbird	The smallest Iowa bird and the only hummingbird to nest in Iowa. They are iridescent green birds which rapidly flap their wings, sometimes making a humming sound. They also can hover or fly backwards. Males have a red throat. Length: 3”	A tiny cup attached to a twig with spider silk; made of thin plant fibers and lined with down
Northern flicker	A large brown and buff-colored woodpecker with black stripes and spots and a red mark on the nape of the neck. Yellow wing shafts are prominent when the bird is flying. Length: 10.5”	Builds nest in a tree cavity using no materials
Eastern wood-pewee	A small, gray bird with dark wings and a a deeply notched tail. Males have white wing bars and a distinctive, plaintive “pee-oo-wee” call. Length: 5.5”	Small thick-walled nest lined with grasses, spider web, and hair; outside is covered with lichen; placed in a mature tree on a horizontal branch away from the trunk
Barn swallow	A chattering bird with a dark metallic back, rust-colored throat and breast, and a deeply forked tail. Length: 6”	A mud nest often stuck to rafters and ceiling corners of sheds and barns
House wren	A small, brown jittery bird with a stubby, erect tail. They often nest in backyards or other places near people. Length: 4.5”	A cavity nest piled with sticks and lined with feathers and bits of trash
Brown thrasher	A rusty brown bird with a streaked, white breast and a long tail. Often repeats its two-syllable phrases. Length: 10”	Loose nest of twigs and dry leaves placed on a loose foundation of longer twigs; placed on the ground or in a low shrub or vine.
Gray catbird	A gray bird with a dark head, long tail, and a rusty patch under the tail; song often mimics other birds but contains distinctive cat-like call. Length: 8”	Similar to cardinal but with more leaves in the a foundation
Wood thrush	Similar plumage as the brown thrasher but smaller with a shorter tail, legs, and beak. Song is a flute-like “gerald-deeeem.” Length: 7”	Similar to robin but smaller and lined with rootlets.

Brown thrasher


Baltimore oriole

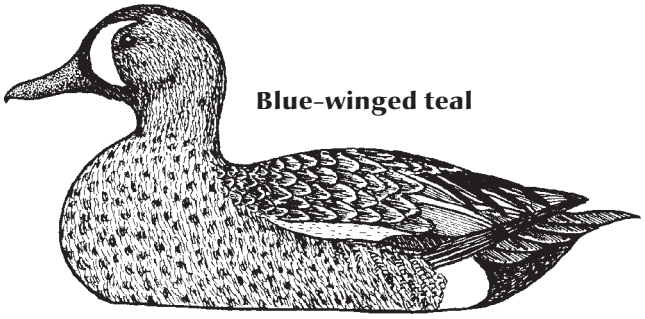

Eastern meadowlark

Common birds of Iowa continued

Common name	Distinguishing characteristics	Nest
American robin	A dark gray bird with a prominent orange breast, white eye ring, and white streaked throat. Length: 8.5”	A deep cup of mud and grasses placed in a fork of branches or on a ledge
Eastern bluebird	A brilliant blue bird with a rusty orange breast and no crest feathers on the head. Females are duller than males. Length: 5.5”	A loose cup of grasses in a tree cavity or nest box
Red-eyed vireo	A light gray-green bird with a white breast, prominent eye stripe, a blue-gray cap, and red eyes. Length: 5”	A deep cup of grasses covered with spider silk and lichens; placed in the horizontal fork of a tree branch
House (English) sparrow (non-native)	A non-native bird which is actually a European finch. The male is easily identified by its black bib. Females resemble native sparrows. Length: 5.5”	Uses a variety of grasses, twigs, and trash placed in any available cavity
Brown-headed cowbird (see page 5)	Males have a jet-black body and a brown head. Females are entirely gray-brown. Length: 6.5”	Makes no nest; parasitizes nests of other birds
Red-winged blackbird	Males are black birds with prominent red shoulder patches. Females are brown with a white streaked breast. Song is a loud, brash “Noke-ah-rheee.” Length: 7.5”	A loose cup of grasses, rushes, and sedges often bound by milkweed fibers and lined with fine grasses; often nests in wet roadsides
Eastern meadowlark	A colorful and vocal bird found in pastures and grasslands. Distinguished by its yellow belly with a prominent black “V.” Length: 8.5”	Built on the ground in a small depression lined and covered with grasses
Baltimore oriole	An orange and black bird with a dark black head. Females are not as brightly colored as the males but are still colorful. Length: 7”	A hanging basket nest made of fine plant fibers, hair, or yarn that may be high in a tree
Northern cardinal	Males are bright red with crested head feathers and a black bib surrounding a thick beak. Females are olive-brown. Length: 8”	Loose nest of twigs, bark, and leaves placed in shrubs or small trees
American goldfinch	Males are bright yellow and black in the summer and olive-colored in the winter. Both sexes have black wings with white side-bars throughout the year. Length: 4.5	A cup of woven grasses lined with thistle or cattail down; usually in the crotch of branches.
Song sparrow	A small brown bird with a streaked breast and black dot on the throat or breast. Length: 5.5”	A cup-shaped nest usually built on the ground using grasses and leaves; lined inside with fine materials

Waterfowl

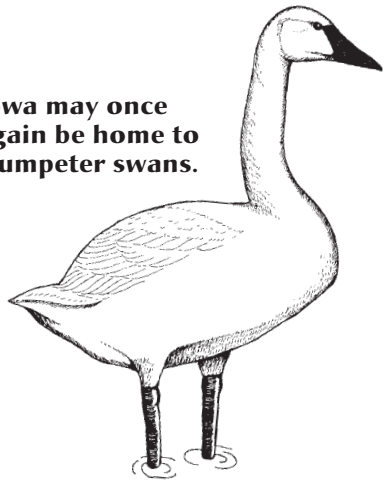
A variety of ducks and geese nest in Iowa. Historically, north-central and northwest Iowa were part of the large prairie-wetlands mosaic known as the prairie pothole region which extended into Minnesota, the Dakotas, and Canada. The prairie pothole region is the continent's most productive waterfowl area, where most ducks and geese are born and return to nest. Today, much of the northern Iowa wetlands have been drained and converted to agricultural or other uses. Ducks and geese still return to the remaining wetlands. They also find places to nest along rivers and ponds throughout the rest of the state.



Blue-winged teal

Most Iowa ducks are **dabblers** which feed by straining tiny plants and animals from the water's surface. Mallards, pintails, and teal are dabbling ducks. Redheads and lesser scaup are examples of **diving ducks** which often swim underwater for their food. The only **tree duck** in Iowa is the wood duck which nests in tree cavities near water. **Grebes** appear to be ducks but actually are in a separate taxonomic group. **Mergansers** are fish-eating ducks which have long, slender beaks lined with tooth-like structures used to capture small prey from the water.

Today, Canada geese are among the most common species of waterfowl in Iowa. For a long time, however, their honking calls were silenced. Unregulated hunting during the 1800s led to the extirpation of Canada geese from Iowa by 1910. It was not until the past decade that reintroduction efforts brought geese populations back to their historic levels.



Iowa may once again be home to trumpeter swans.

The Iowa DNR Wildlife Diversity Program is currently working to reintroduce the largest and most majestic waterfowl species in North America to its former Iowa habitat. Trumpeter swans once nested in Iowa but were extirpated by the mid-1880s due largely to unregulated market hunting. By 1932, only 69 trumpeter swans were known to exist in the continental United States. But Iowa may once again be home to trumpeter swans. Carefully planned releases of young swans are hoped to lead to the establishment of 15 or more pairs of wild nesting adult swans in Iowa by the year 2003.

Common waterfowl which nest in Iowa are listed here. Refer to a field guide for more detailed lists, descriptions, ranges, and behaviors.

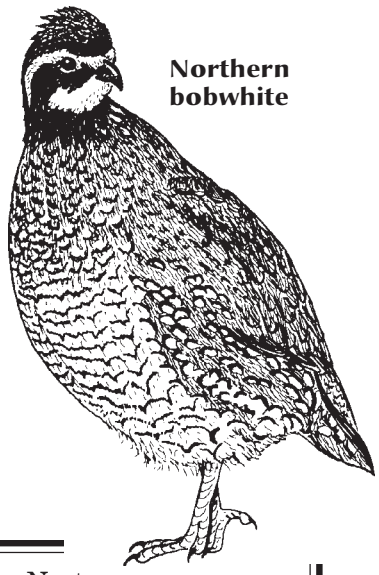
Pied-billed grebe

Common nesting waterfowl of Iowa

Common name	Distinguishing characteristics	Nest
Pied-billed grebe	A duck-like diving bird with lobed feet. They are small, dark birds with short necks, wings, and legs that require a long runway to take off from the water. Adults have a vertical stripe on their bills. Length: 9”	Builds a floating nest of grasses, sedges, algae, and mud attached to reeds and rushes
Canada goose	The only goose which nests in Iowa. A large brown-gray goose with a black neck and head and distinctive white cheeks. Wingspan: 50-68”	Built on ground or on a stump or muskrat lodge; a depression lined with grasses, sticks, reeds, cattails, and down
Mallard	Males have an iridescent green head, white neck ring, and rust-colored breast. Call is a loud quack. Wingspan: 36”	Grasses, cattails, reeds, and other plants are used to form a well-hidden nest; lined with feathers
Blue-winged teal	Males have a prominent white crescent on the sides of their heads. Both sexes have light blue feathers on the forward part of their wings. Wingspan: 24”	Built on dry ground or on a muskrat lodge using grasses, cattail blades, and feathers woven into a loose basket
Wood duck	Males are especially colorful with a “slicked-back” head crest. The head is a dark, iridescent color with white stripes, red eyes, and a multi-colored beak. The body is equally colorful. Wingspan: 28”	Nests in tree cavities or human-made nest boxes; eggs are laid on bits of wood or sawdust and down

Upland game birds

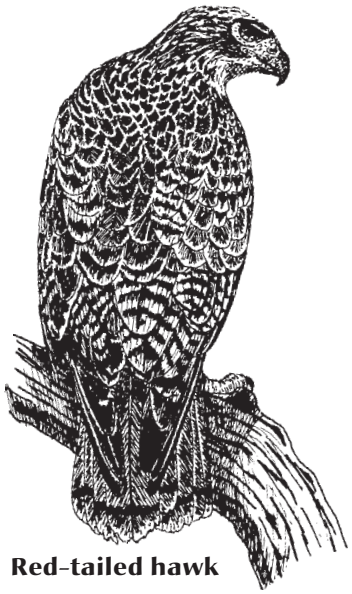
Turkeys, grouse, quail, and pheasants are strong-legged birds capable of running or flying. They are often sought by Iowa hunters. Grouse and turkeys commonly nest in woodlands while quail, partridge, and pheasants are more commonly found nesting in grass or shrubby areas and along roadsides. The wild turkey is a reintroduced species that vanished from the state due to over-hunting by pioneer settlers and early market hunters. After several failed attempts at restoring turkey populations in Iowa, wild turkeys were successfully reintroduced in the 1970s.
Ring-necked pheasants are non-native birds that were released accidentally at the turn of the century. Today, pheasants are the most popular game bird in Iowa. Iowa upland game birds which nest in Iowa are listed here. Refer to a field guide for more detailed descriptions, ranges, and behaviors.



Northern bobwhite

Common nesting upland game birds of Iowa

Common name	Distinguishing characteristics	Nest
Wild turkey	A large dark bird with a dark, metallic brown body and a naked head. Distinctive beard feathers are found on the breast of males and sometimes on females. Length: 34”	A depression lined with dry leaves usually hidden under a log or shrub
Ring-necked pheasant (non-native)	Males are especially colorful with a dark head, white neck-ring, and prominent red eye patch. The body may have various colors of brown, red, and gold. Females are mottled brown. Both sexes have long pointed tails. Length: 27”	A well-hidden depression lined with grasses, stems, and leaves
Northern bobwhite	A short, stocky bird with a short tail. Males have a bright white throat and eye line. The body is mottled with brown and white. Length: 8”	A hollow in a tussock of dead or growing grasses; lined with grasses
Gray partridge (non-native)	A gray bird with a rusty fan-shaped tail. Partridge are slightly larger than bobwhite quail and often are found in flocks. Length: 10”	A depression filled with grasses and stems and lined with finer grasses, soft leaves, and feathers
Ruffed grouse	Uncommon except in northeast Iowa. Ruffed grouse are brown birds with white breasts and distinctive broad tails with black tail bands. Males produce a drumming sound by beating their wings. Length: 14”	A hidden depression under a log or another structure or in dense shrubs; lined with leaves and feathers



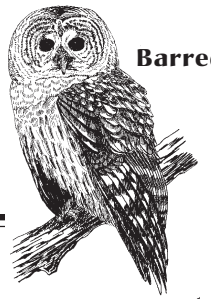
Red-tailed hawk

Birds of prey

Hawks, falcons, owls, and eagles are birds which hunt other animals. They are easily identified by their sharp talons and sharp, hooked beaks. Hawks are the most common birds of prey and are divided into two groups. **Accipiters** are hawks with long tails and short wings that are more common in wooded areas. **Buteos** are hawks that soar with large, broad wings and a broad, fanned tail. The largest buteos are the eagles. At the time of Euro-American settlement, bald eagles were common in the Midwest. However, pesticide poisoning, habitat loss, and shooting of eagles caused their populations to plummet, and our national symbol was placed on the federal endangered species list. No eagle nests were reported in Iowa from 1908 to 1976. The banning of some dangerous pesticides, and protection of eagles and their habitat, have resulted in an increase in the bald eagle population in Iowa. Bald eagles are now commonly seen during the winter below dams or in other areas of open water where they search for fish and other food. Only recently have large numbers of bald eagles begun to nest again in Iowa. In 1997, 58 nests were reported in Iowa - the most nests reported in the twentieth century!

Falcons are birds of prey with long, pointed wings and tails. They are fast, powerful fliers. The fastest bird of prey is the peregrine falcon which has been clocked diving at speeds faster than 200 mph. Although rare in Iowa, recent reintroduction attempts have been somewhat successful. Historically, peregrines were uncommon nesters on cliffs along the Mississippi River. Biologists have released falcons from artificial nest sites atop tall buildings in Cedar Rapids, Des Moines, and Mason City. The falcons prey primarily on city pigeons. Hopefully, peregrines will migrate south in winter and return in spring to nest in Iowa.

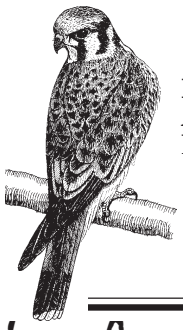
Some common birds of prey which nest in Iowa are listed here. Refer to a field guide for more detailed lists, descriptions, ranges, and behaviors.



Barred owl

Common nesting birds of prey in Iowa

Common name	Distinguishing characteristics	Nest
Owls		
Eastern screech owl	A small rusty brown or gray owl with feather tufts or "horns." Song is a wavery trill. Wingspan: 22"	Builds no nest; lays eggs in a tree cavity, abandoned woodpecker holes, or in a bird house
Barred owl	A medium to large owl with distinctive brown bars on the breast, no feather tufts, and dark eyes. Song is a raucous hooting sometimes sounded phonetically as "Who cooks for you?" Wingspan: 44"	Commonly lays eggs in a tree cavity or hollow treetop; rarely builds an open nest; lined with pine twigs
Great horned owl	A large owl with feather tufts and fine horizontal barring on the breast. Colors may vary but most are brown. Call is a series of low muffled hoots. Wingspan: 55"	Usually uses an abandoned nest of a red-tailed hawk or other large bird, adding a few feathers to line the nest
Hawks and eagles		
Red-tailed hawk	A common buteo of fields and woodland edges. Varies in color but adults have a distinctive red tail. Wingspan: 48"	A flat, shallow platform of sticks and twigs placed high in a tree; lined with a variety of smaller materials
Cooper's hawk	A small accipiter with a mottled breast and narrow, rounded tail with distinct black stripes. The more common, smaller sharp-shinned hawk is similar with a more square tail. Wingspan: 28"	A sturdy nest of sticks and twigs lined with chips or flakes of bark from pine or oak trees
Bald eagle	A large, dark bird that often is seen soaring with flat outstretched wings. Adults attain their distinctive white head and tail feathers when they are approximately five years old. Juveniles are all dark and at a distance sometimes are confused with turkey vultures, which are about the same size, but fly with their wings bent back in a "V" and have a smaller head. Wingspan: 80"	Builds the largest nest, called an eyrie, of any North American bird. Pairs returns to the same nest each year, adding more material; a huge pile of branches and cornstalks placed high in the forks of thick branches
Falcons		
American kestrel	A small, colorful, blue-gray bird with a rusty back, white cheeks, and black whisker stripes. Common along roadsides. Wingspan: 21"	Usually lays eggs in tree cavities, old woodpecker holes, or human-made nest boxes common along interstates



Wading and shorebirds

A variety of birds often are seen walking and stalking in Iowa rivers and streams or trodding the shallow edges of ponds and lakes. Each have their own special adaptations for finding food from the water.

Herons, egrets, and bitterns are long-legged wading birds which spear or grasp their food while wading in shallow water. Rails and coots are shorter-necked birds which probe or dive for food in shallow waters.

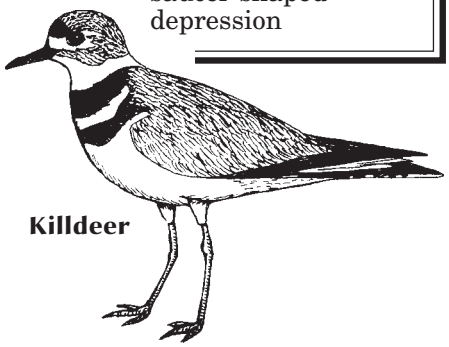
Great blue heron

Many smaller shorebirds search sandbars, beaches, and wetland edges for food. They usually have long legs for their body size and long, slender beaks for probing and grasping insects and small aquatic animals.

A few common wading and shore birds which nest in Iowa are listed here. Refer to a field guide for more detailed lists, descriptions, ranges, and behaviors.

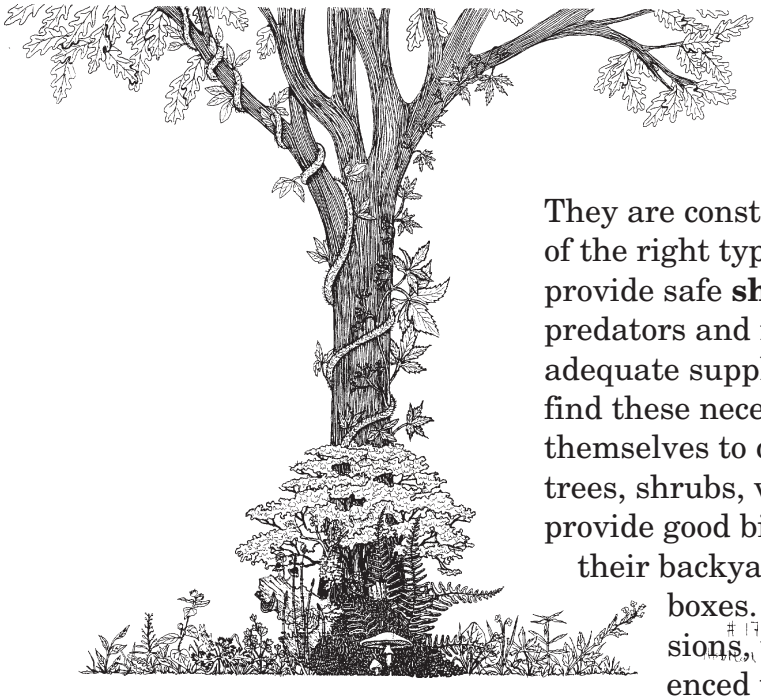
Common nesting shorebirds of Iowa

Common name	Distinguishing characteristics	Nest
Great blue heron	A large, long-legged wading bird commonly seen along rivers, streams, and marshy areas. It is mostly blue-gray with a white face and orange beak. Flies with its neck tucked back in an "S." Wingspan: 70"	A bulky platform nest of sticks; sometimes nests of many birds are found in colonies, called "heronies;" located in tall trees
American bittern	A well-camouflaged, brownish bird of marshes and wet meadows. When disturbed, it stands motionless with its beak pointed upward. Wingspan: 45"	A platform of sedges, grasses, reeds, and cattails usually placed in marsh plants a few inches above the water
American coot	A black bird with a white beak often seen swimming duck-like on ponds or lakes. Like grebes, coots have lobed feet. Wingspan: 26"	A floating platform of marsh plants, concealed by plants, attached to standing reeds and cattails
Killdeer	A very common shorebird often seen in roadsides and along water, but also common in grasslands and agricultural fields away from water. Easily identified by its two neck bands and its "kill-deer" call. Wingspan: 20"	Female is famous for feigning an injury to distract predators away from its bare nest of pebbles and sparse grasses located on the ground
Spotted sandpiper	Often seen along rivers on sandbars. It is a brown bird with a white spotted breast and a tail which constantly bobs up and down. When flying, the head and wing tips are pointed down. Wingspan: 13"	Females often establish territories and males do most of the incubating and raising of young. Nest is a concealed saucer-shaped depression



Killdeer

Attracting nesting birds



Birds have the same general **habitat needs** as all wildlife. They are constantly in search of adequate supplies of the right types of **food**; available structure to provide safe **shelter** from the weather and predators and materials for nesting; accessible and adequate supplies of **water**; and enough **space** to find these necessary resources without exposing themselves to danger. By planting certain types of trees, shrubs, vines, and flowers, people are able to provide good bird habitat. Some people augment their backyard habitat with human-made nest boxes. By making special landscape decisions, the activity of wildlife can be experienced throughout the seasons.

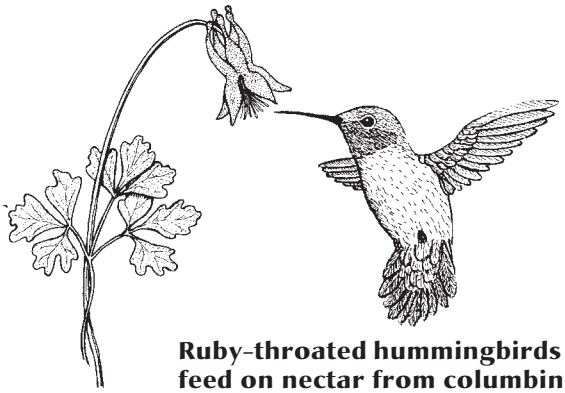
Habitat is home

Cedar waxwings feed on a variety of berries.

Birds are attracted to areas with the right types and arrangement of plants to suit their habitat needs for food and shelter. In natural areas, the types of birds differ greatly depending on the vegetation and presence of water. The same is true for backyard habitats.

A well-planned backyard habitat provides food, shelter, water, and other habitat needs for a variety of birds throughout the seasons. This usually means that the area is landscaped using a variety of plants. Birds feed on specific foods, so a variety of food should be made available: fruits, berries, and seeds; nuts; buds and blossoms; nectar; insects; and aquatic plants are important

foods for certain types of birds. Plants and structures that commonly provide important foods for Iowa's nesting birds are listed below. More information about plants that benefit specific birds and other wildlife can be found in books about attracting and landscaping for wildlife listed in the Useful Resources section of this booklet.



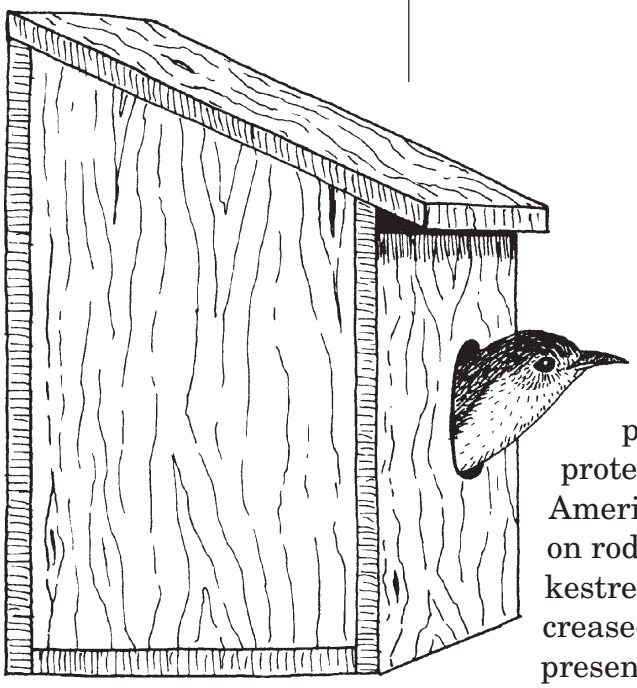
Ruby-throated hummingbirds feed on nectar from columbine and other flowers.

Plants and structures for nesting birds in Iowa

Type of food	Plants and structures	Bird species
Fruits and berries	serviceberry, dogwood, gooseberry, wild rose, blackberry, wild grape, crabapples, cherry, hawthorn, hackberry, viburnum	cardinal, catbird, robin, grosbeak, cedar waxwing, brown thrasher, vireo, bluebird, wood thrush, oriole
Acorns	oaks	blue jay, turkey, wood duck
Buds and blossoms	maples, crabapples, native honeysuckle	catbird, robin, wood thrush, grosbeaks, cedar waxwing
Nectar	trumpet vine, columbine, hollyhock, phlox	hummingbird and orioles
Insects	oaks, dogwoods, hawthorn, viburnum, brush piles, pastures, areas near water	woodpeckers, tufted titmouse, nuthatches, chickadee, bluebird, wood thrush, meadowlarks, killdeer
Aquatic plants and animals	pond weeds, seeds of emergent plants, small fish, amphibians, invertebrates	mallard and other ducks, geese, herons, kingfisher, and other wading and shorebirds

Birdhouses

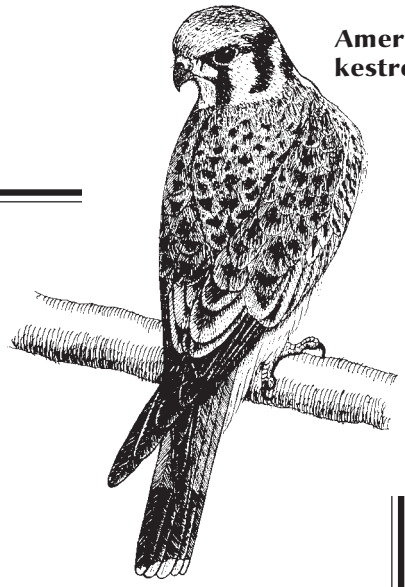
Changes in habitat and the introduction of the European starling and house sparrow have left some Iowa birds with fewer places to call home. This is especially true for some cavity-nesting birds. People can help these birds by building nest boxes.



House wren in a bird house

The most common nest boxes in Iowa are for bluebirds, wood ducks, kestrels, and house wrens. At one time, people thought wood ducks and bluebirds may become extinct. Today, the wood duck is a common duck, and the numbers of eastern bluebirds have grown to much safer levels. These species both benefited from extensive nest box programs, as well as habitat protection and pesticide management. American kestrels are important predators on rodents and insects, and extensive kestrel box programs have greatly increased the number of kestrels in Iowa. At present, more than 740 nest boxes in 35 counties are known to be maintained as kestrel nest box trails. Many of the trails are along highways and interstates where kestrels can hunt the grassy roadsides. The longest kestrel nest box trail is along Interstate 35, stretching from the Minnesota to the Missouri borders. House wrens are easy to attract to a nest box near a home or garden, livening-up a home with their constant song and activity. Some people take special care in building decorative wren houses to display around their house.

Nest boxes can be used to attract a large variety of wildlife. Nest box design plans for 48 species of birds and other wildlife can be found in the book Woodworking for Wildlife listed in the Useful Resources section of this booklet. Ten general rules for constructing and placing nest boxes are listed here.



American kestrel

Basic nest box tips

1. Birdhouses require specific dimensions and entrance holes for specific birds.

2. Provide a hinged side or roof so the box can be easily checked and cleaned.

3. Most boxes should have drain and ventilation holes.

4. With the exception of wren houses which often are hung and allowed to dangle, nest boxes should be securely fastened.

5. Do not put perches on any nest boxes. Perches invite sparrows and starlings.

6. There should be at least a two-inch overhang on the top front edge of a nest box to keep rain out and help prevent cats from reaching in over the top.

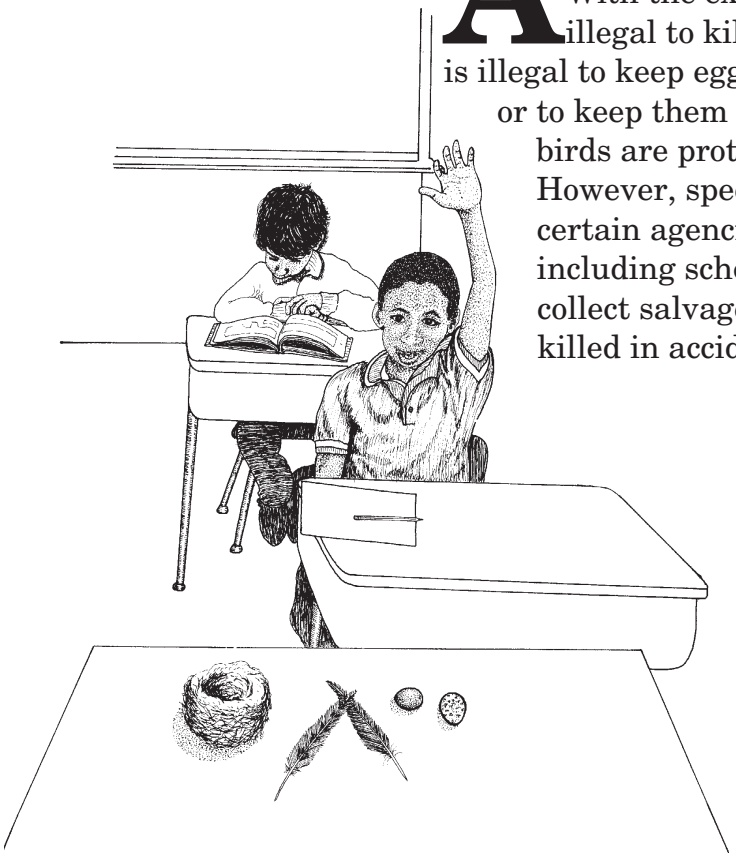
7. Do not use tin cans, milk cartons, or metal for a nest box. They have poor insulation and heat up too quickly in the sun.

8. When the nesting season is over, leave the side or front open to prevent mice from nesting during the winter.

9. The sides of a nest box should enclose the floor board to keep water from seeping in through the sides.

10. Allow for the width of a saw blade when marking lumber for cutting.

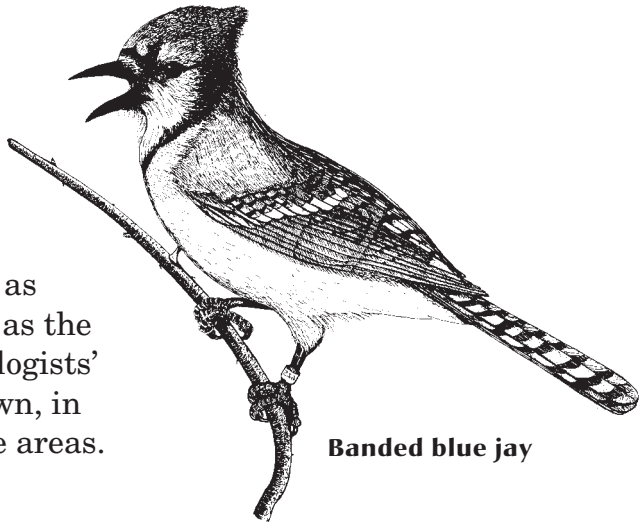
Bird protection



All native birds are protected by Iowa law. With the exception of game birds, it is illegal to kill birds for sport or food. It also is illegal to keep eggs, nests, or feathers from birds or to keep them as pets. All native nongame birds are protected by state and federal laws. However, special permits can be obtained by certain agencies and organizations, including schools and nature centers, to collect salvaged feathers and nests or birds killed in accidents.

The most common state permits issued to schools or nature centers are educational project permits, wildlife salvage permits, and wildlife rehabilitation permits. An **educational project permit** allows the permittee to possess certain types and numbers of live animals for educational purposes. A **wildlife salvage permit** allows permittees to salvage birds and other animals which have died from accidents or natural causes for educational purposes. Some nature centers have **wildlife rehabilitation permits** that allow them to care for injured wildlife until they are healed and ready to be released, including hawks, owls, and other birds. In addition to these state permits, federal permits are required for all migratory birds. This includes all birds except house sparrows, starlings, upland game birds, and pigeons.

Keeping an eye out for the birds



Banded blue jay

People have a fascination for birds. Whether at our feeders, darting among bushes and trees, creeping around tree trunks, or probing our lawns, birds are an important part of our lives. Many people across the state identify themselves as birdwatchers. Some belong to groups such as the National Audubon Society or Iowa Ornithologists' Union. Many others enjoy birds on their own, in their own backyards, and in nearby wildlife areas.

There is much to be learned by watching birds. Bird banding is a method used by some bird watchers to determine the status of individual birds. Birds are caught in long nets and quickly collected. Their age, weight, and other information are recorded. A lightweight, coded metal bracelet is carefully placed around a leg of each bird before it is released. By keeping careful record of birds caught and re-caught, both professional and amateur ornithologists learn a lot about birds.

Amateur bird watchers also are involved in voluntary bird surveys. The Iowa Ornithologists' Union coordinates spring bird counts and winter birdfeeder surveys. The National Audubon Society sponsors annual Christmas bird counts. Individuals or classes can join in the survey by contacting the organizations and requesting survey forms. Keep an eye open for the birds. Watch their behavior. What are they doing? What are they eating? How do they move around and find their food and water? Watch them build their nests and raise their young. There are more than 9,000 species of birds on Earth. More than 400 have been sighted in Iowa, and approximately 150 commonly nest in the state. How many species are left for you to discover?

Useful resources

An Illustrated Guide to Attracting Birds; Susan Warton, editor; Sunset Publishing Corporation, Menlo Park, CA; 1994.

The Audubon Society Encyclopedia of North American Birds; John K. Terres; Alfred A. Knopf, Inc., New York, NY; 1980.

The Birdfeeder Book; Donald and Lillian Stokes; Little, Brown and Company, Boston, MA; 1987.

Birds At My Feeder; Bobbie Kalman and Glen Loates; Crabtree Publishing Co., New York, NY; 1987.

Birds In Iowa; Thomas H. Kent and James J. Dinsmore; privately published, Iowa City and Ames, IA; 1996.

Birds of the Backyard; Video narrated by George Harrison; Company for Home Entertainment, Suffield, CT; 1989.

Birds of North America; Robbins, Bruun, Zim, and Singer; Golden Press, New York, NY; 1983.

Birdwatching; Bob Hume; Random House, Inc., New York, NY; 1993.

Feeding Wild Birds In Winter; Clive Dobson; Firefly Books, Ltd., Ontario, Canada; 1981.

IAN Booklet Series; Iowa Association of Naturalists; ISU Extension Service, Ames, IA.

- **Iowa's Nesting Birds** (IAN-606); Iowa Wildlife Series; 1998.
- **Keeping Iowa Wildlife Wild** (IAN-402); Iowa Wildlife and People Series; 1996.
- **Iowa Biodiversity** (IAN-407); Iowa Wildlife and People Series; 1996.
- **Adapting To Iowa** (IAN-408); Iowa Wildlife and People Series; 1996.
- **Iowa Woodlands** (IAN-202); Iowa's Biological Communities Series; 1993.
- **Iowa Prairies** (IAN-203); Iowa's Biological Communities Series; 1993.
- **Iowa Wetlands** (IAN-204); Iowa's Biological Communities Series; 1993.
- **Iowa Waterways** (IAN-205); Iowa's Biological Communities Series; 1993.
- **Iowa Habitat Loss and Disappearing Wildlife** (IAN-101); Iowa Environmental Issues Series; 1998.

The Iowa Breeding Bird Atlas; Laura Spess Jackson, Carol A. Thompson, James J. Dinsmore, Bruce L. Ehresman. John Fleckenstein, Robert Cecil, Lisa M. Hemesath, and Stephen J. Dinsmore; University of Iowa Press, Iowa City, IA; 1996.

Iowa's Trumpeter Swan Restoration Program; Iowa Department of Natural Resources Wildlife Diversity Program, Boone, IA; 1997.

Landscaping For Wildlife; Minnesota Department of Natural Resources; Minnesota's Bookstore, St. Paul, MN; 1987; 1-800-657-3757.

North American Birdfeeder Handbook; Robert Burton; Dorling Kindersley Publishing, Inc., New York, NY; 1992.

Peterson Field Guides: Birds' Nests; Hal H. Harrison; Houghton Mifflin Co., Boston, MA; 1975.

Shelves, Houses, and Feeders For Birds and Animals; ISU Extension publication (NCR-338), Ames, IA

A Teacher's Activity Booklet About...Iowa Birds; Linda R.F. Zaletel; Iowa Ornithologists' Union and the Iowa Conservation Education Council, Ames, IA; 1997.

Woodworking For Wildlife; Minnesota Department of Natural Resources; Minnesota's Bookstore, St. Paul, MN; 1992; 1-800-657-3757.

Iowa Nesting Birds is one in a series of six booklets that are part of the *Iowa Wildlife Series*. The booklets in the series include:

Iowa Wildlife Series

Iowa Mammals	(IAN-601)
Iowa Winter Birds	(IAN-602)
Iowa Nesting Birds	(IAN-603)
Iowa Reptiles and Amphibians	(IAN-604)
Iowa Fish	(IAN-605)
Iowa Insects and Other Invertebrates	(IAN-606)

The Iowa Association of Naturalists also has produced five other booklet series that provide readers with a clear, understandable overview of topics concerning the Iowa environment and conservation. The booklets included in each of the other five series are listed below.

Iowa's Natural Resource Heritage

Changing Land Use and Values	(IAN 501)
Famous Iowa Conservationists	(IAN 502)
Iowa's Environmental Laws	(IAN 503)

Iowa Wildlife and People

Iowa Wildlife Management	(IAN-401)
Keeping Iowa Wildlife Wild	(IAN-402)
Misconceptions About Iowa Wildlife	(IAN-403)
State Symbols of Iowa	(IAN-404)
Iowa Food Webs and Other Interrelationships	(IAN-405)
Natural Cycles In Iowa	(IAN-406)
Iowa Biodiversity	(IAN-407)
Adapting To Iowa	(IAN-408)

Iowa Plants

Iowa's Spring Wildflowers	(IAN-301)
Iowa's Summer and Fall Wildflowers	(IAN-302)
Benefits and Dangers of Iowa Plants	(IAN-303)
Iowa's Trees	(IAN-304)
Seeds, Nuts, and Fruits of Iowa Plants	(IAN-305)
Iowa's Mushrooms and Other Nonflowering Plants	(IAN-306)
Iowa's Shrubs and Vines	(IAN-307)

Iowa's Biological Communities

Iowa's Biological Communities	(IAN-201)
Iowa Woodlands	(IAN-202)
Iowa Prairies	(IAN-203)
Iowa Wetlands	(IAN-204)
Iowa Waterways	(IAN-205)

Iowa Environmental Issues

Iowa Habitat Loss and Disappearing Wildlife	(IAN-101)
Iowa Air Pollution	(IAN-102)
Iowa Water Pollution	(IAN-103)
Iowa Agricultural Practices and the Environment	(IAN-104)
People, Communities, and Their Iowa Environment	(IAN-105)
Energy In Iowa	(IAN-106)
Iowa Waste Management	(IAN-107)

These booklets are available to download via PDF on the ISU Extension Store:

store.extension.iastate.edu

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